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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/833,639	04/13/2001	Serguei Zhdanok	000348-263	3068
7590 08/11/2004			EXAMINER	
E. Joseph Gess BURNS, DOANE, SWECKER & MATHIS, L.L.P. P.O. Box 1404 Alexandria, VA 22313-1404			LANGEL, WAYNE A	
			ART UNIT	PAPER NUMBER
			1754	

DATE MAILED: 08/11/2004

Please find below and/or attached an Office communication concerning this application or proceeding.



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SERIAL NUMBER	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09833639

EXAMINER

ART UNIT PAPER NUMBER

1754

DATE MAILED:

This is a communication from the examiner in charge of your application.  
COMMISSIONER OF PATENTS AND TRADEMARKS

☐ This application has been examined ☒ Responsive to communication filed on 6-24-04 ☒ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), \_\_\_\_\_ days from the date of this letter.  
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

**Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited by Examiner, PTO-892.        | 2. <input type="checkbox"/> Notice of Draftsman's Patent Drawing Review, PTO-948. |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449.             | 4. <input type="checkbox"/> Notice of Informal Patent Application, PTO-152.       |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input type="checkbox"/> _____   |

**Part II SUMMARY OF ACTION**

1. ☒ Claims 1, 3, 5-9 and 11-21 are pending in the application.

Of the above, claims \_\_\_\_\_ are withdrawn from consideration.

2. ☐ Claims \_\_\_\_\_ have been cancelled.

3. ☒ Claims 1, 3, 5-9 and 11-19 are allowed.

4. ☒ Claims 20 is rejected.

5. ☒ Claims 21 is objected to.

6. ☐ Claims \_\_\_\_\_ are subject to restriction or election requirement.

7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. ☐ Formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on \_\_\_\_\_. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).

10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on \_\_\_\_\_, has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed \_\_\_\_\_, has been ☐ approved; ☐ disapproved (see explanation).

12. ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. This certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. \_\_\_\_\_; filed on \_\_\_\_\_.

13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

EXAMINER'S ACTION

Art Unit 1754

The following is a quotation of 35 U.S.C. § 103(a) which forms the basis for all obviousness rejections set forth in this

Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 20 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Tonkovich et al., for the reasons given in the last Office action. Applicant's argument, that it is well established that a modification proposed by the Patent Office cannot change the principle of operation of a reference, and that Tonkovich et al. teaches that a significant advantage of the process thereof is the reduced pressure drop achieved by flowing the reactant to pass and contact the porous structure and not requiring the reactant to flow through the porous structure, is not convincing. Modifying the process of Tonkovich et al. to introduce the entire flow of the reactant into the porous structure would not change the "principle of operation" of the process of Tonkovich et al., but would simply result in a greater pressure drop, as suggested at column 2, lines 51-59. Applicant's argument, that the prior art must suggest the

desirability of the claimed invention, is not convincing. It is only necessary that the prior art fairly suggest doing what applicant has done, and in the instant case Tonkovich et al. clearly suggest at column 2, lines 51-59 that the entire flow of the reactant may be introduced into the porous structure. Applicant's argument, that Tonkovich et al. has no recognition or suggestion that more reaction in the process is in fact desirable or necessary, but rather discloses that a sufficient amount of reaction already takes place, is not convincing. Tonkovich et al. teach at column 2, lines 54-57 that sufficient reaction still occurs because of the net flux through molecular diffusion into and out of the porous structure. This teaching of Tonkovich et al. would clearly suggest to one of ordinary skill in the art that a greater degree of reaction would occur if the reactants flowed through the porous structure. Tonkovich et al. clearly suggest a tradeoff between the degree of reaction and the degree of pressure drop at column 2, lines 51-59, and one of ordinary skill in the art would recognize from this disclosure that a reduced pressure drop could be sacrificed for a greater degree of reaction or, conversely, that a greater degree of reaction could be sacrificed for a reduced pressure drop.

Claim 21 is objected to as based on a rejected parent claim, and would be allowed if written in independent form.

Serial No. 09/833,639

-4-

Art Unit 1754

Claims 1, 3, 5-9 and 11-19 are allowed.

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 C.F.R. § 1.136(a).

A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS FINAL ACTION IS SET TO EXPIRE THREE MONTHS FROM THE DATE OF THIS ACTION. IN THE EVENT A FIRST RESPONSE IS FILED WITHIN TWO MONTHS OF THE MAILING DATE OF THIS FINAL ACTION AND THE ADVISORY ACTION IS NOT MAILED UNTIL AFTER THE END OF THE THREE-MONTH SHORTENED STATUTORY PERIOD, THEN THE SHORTENED STATUTORY PERIOD WILL EXPIRE ON THE DATE THE ADVISORY ACTION IS MAILED, AND ANY EXTENSION FEE PURSUANT TO 37 C.F.R. § 1.136(a) WILL BE CALCULATED FROM THE MAILING DATE OF THE ADVISORY ACTION. IN NO EVENT WILL THE STATUTORY PERIOD FOR RESPONSE EXPIRE LATER THAN SIX MONTHS FROM THE DATE OF THIS FINAL ACTION.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wayne A. Langel whose telephone number is (571) 272-1353. The examiner can normally be reached on Monday through Friday from 8 A.M. to 3:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on (571) 272-1358. The fax phone number for this

Serial No. 09/833,639

-5-

Art Unit 1754

Group is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or public PAIR. Status information for unpublished applications is available through private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WAL:cdc

August 5, 2004

*Wayne A. Langel*  
WAYNE A. LANGEL  
PRIMARY EXAMINER